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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/006,203	12/10/2001	Huang Chih Sheng	HUAN3091/EM/7270	9034
23364	7590	09/06/2005	EXAMINER	
BACON & THOMAS, PLLC 625 SLATERS LANE FOURTH FLOOR ALEXANDRIA, VA 22314			AHMED, SALMAN	
			ART UNIT	PAPER NUMBER
			2666	

DATE MAILED: 09/06/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

SP

Office Action Summary	Application No.		Applicant(s)	
	10/006,203		SHENG ET AL.	
	Examiner		Art Unit	
	Salman Ahmed		2666	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 December 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 December 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

2. Claims 1-5 are rejected under 35 U.S.C. 102(e) as being anticipated by Mahany et al. (US PAT 6654378), hereinafter referred to as Mahany.

In regards to claims 1-3, a signal propagation method for propagating a wireless signal from a first access point of a first wireless network to a second access point of a second wireless network comprising steps of: providing a third access point for transmitting and receiving wireless signal; transmitting wireless signal from first access point to third access point; and transmitting wireless signal from third access point to second access

Art Unit: 2666

point; first wireless network is a wireless local area network and second wireless network is a wireless local area network is anticipated by figure 6, where access point 81 represents the first access point, 83 represents the third access point and 90 represents the second access point.

In regards to claim 4, the third access point operating steps of: receiving a package of said wireless signal, reading a source address of said package; reading a destination address of said package, and sending said package from said first access point to said second access point provided said source address is correspondent to said first access point and said destination address is correspondent to said second access point is anticipated by (figure 6, column 15 lines 57-67, column 16 lines 1-6) the steps of terminal 87 communicating with the printer 95 via the premises network. In particular, the terminal 87 sends data destined for the printer 95 to the access device 85 using a higher power transmission. The access device 85 examines its routing table attempting to identify the printer 95 in an upstream path. Upon failing to find an entry for the printer 95, the access device 85 sends the data downstream to the access device 83. The access device 83 similarly fails to identify the printer 95 and forwards the data downstream to the root, the access device 81. The access device 81 identifies the printer 95 in an upstream path and routes the data upstream to the access device 90. Finally, the access device 90 participates in a peripheral LAN with the printer 95 at a lower power level to complete the delivery of the data to the printer 95.

In regards to claim 5, third access point being a wireless repeater is anticipated by (column 14 lines 31-34) an access point being a relaying device, receives data or other information, and relays toward the destination.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mahany, in view of Chhaya et al., "Throughput and fairness properties of asynchronous data transfer methods in the IEEE 802.11 MAC protocol," in Proc. IEEE PIMRC '95, Toronto, Canada, Sept. 27-29, 1995, pp. 613-617, hereinafter referred to as Chhaya.

Mahany teaches using multiple access points to communicate data as described in the rejection of claim 1 above.

Mahany does not explicitly teach using protocols like IEEE 802.11 for communication between access points in WLAN.

Chhaya teaches IEEE 802.11 being used in a WLAN environment. Chhaya teaches page 614, section 3 Performance Modeling of 802.11 WLANs) performance evaluation of 802.11 MAC protocol poses several new challenges that require innovative solutions. The presence of hidden stations, use of carrier sensing in a wireless environment, and decentralized nature of communication, i.e., without the intervention of the AP; These are some of the key factors whose impact on system performance need to be carefully evaluated. In WLAN systems the performance observed by stations is not identical; it is expected to be a function of not only their location but the location of other stations as well.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Mahany's teaching by incorporating Chhaya's teaching of using IEEE 802.11 protocol. The motivation is that routable protocols like IEEE 802.11 is more suitable for communication in WLAN related architecture than other similar protocols as suggested by Chhaya (page 613, section 1 Introduction, to satisfy the

needs of wireless data networking, study group 802.11 was formed under IEEE project 802 to recommend an international standard for Wireless Local Area Networks (WLANs)).

6. **Prior art pertinent to the application but not used in office action:**

- US 6243581 B1 USPAT Method and system for seamless roaming between wireless communication networks with a mobile terminal
Jawanda; Jastinder
- US 5903548 A USPAT Portable electronic communications device having switchable LAN/WAN wireless communications features
Delamater; Jeff
- US 5726984 A USPAT Hierarchical data collection network supporting packetized voice communications among wireless terminals and telephones Kubler; Joseph J. et al.
- US 6862448 B1 USPAT Token-based receiver diversity Bims; Harry
- US 6452910 B1 USPAT Bridging apparatus for interconnecting a wireless PAN and a wireless LAN Vij; Vikram et al.
- US 5953507 A USPAT Method and apparatus for providing a 3-way connection between a mobile computing device, a stationary computing device and a computer network Cheung; Roger Yiu Ming et al.

- ## Conclusion

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seema Rao can be reached on (571)272-3174. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2666

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Salman Ahmed
Examiner
Art Unit 2666

SA

Seema S. Rao
SEEMA S. RAO 9/1/05
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600